

REMARKS

At the outset, the Examiner is thanked for the thorough review and consideration of the pending application. The Office Action dated December 31, 2009 has been received and its contents carefully reviewed.

Claims 1, 5, and 6 have been amended. Support for this amendment may be found at least at, for example, ¶¶ [0018], [0019], [0027], [0028], [0032], [0033], [0036], [0053], [0054] and [0057] to [0059] of the Specification as originally filed. Thus, no new matter has been added. Claim 4 has been canceled without prejudice or disclaimer. Claims 2 and 3 have been previously canceled. Accordingly, claims 1 and 5-9 are currently pending. Reexamination and reconsideration of the pending claims are respectfully requested.

The Office Action rejects claims 1 and 4-9 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent Application Publication No. 2001/0055892 to Nishikawa et al. (hereinafter "*Nishikawa*") in view KR 20020097415 (hereinafter "*KR 415*") or KR 20040000709 (hereinafter "*KR 709*"). Claim 4 is now canceled and thus, the rejection with respect to this claim is now moot. As to the remaining claims, Applicants respectfully traverse the rejection.

In order to establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. The combined teaching of *Nishikawa*, *KR 415*, and *KR 709* does not teach or suggest each and every element of claims 1 and 5-9, and thus cannot render these claims obvious.

Independent claim 1 recites, "[o]rganic siloxane resins...having a dielectric constant in the range of 2.24 to 2.48 and a mechanical strength in the range of 6 to 8 GPa, which are condensed polymers, manufactured by a hydrolysis and condensation reaction of only hydrosilane compounds, wherein at least one hydrosilane compound has the following Chemical Formula 1." *Nishikawa* fails to teach or suggest at least these elements of claims 1.

Nishikawa discloses a composition comprising at least one compound of $R_aSi(OR^1)_{4-a}$ ("compounds (1)") and at least one compound of $R^8_3SiOR^9$ ("compounds (4)"). See *Nishikawa*, ¶¶ [0006] to [0015]. Here, only the compounds (1) can be hydrosilane compounds but not the compounds (4). *Id.* Because *Nishikawa* discloses that " R^8 and R^9 each independently represents

a monovalent organic group,” but silent on that each group can be a hydrogen. *Nishikawa*, ¶ [0013], emphasis added. Therefore, *Nishikawa* fails to teach the element of “manufactured by a hydrolysis and condensation reaction of only hydrosilane compounds” as recited in claim 1. In addition, *Nishikawa* also fails to teach or suggest “dielectric constant in the range of 2.24 to 2.48 and a mechanical strength in the range of 6 to 8 GPa” of claim 1. *KR 415* or *KR 709* cannot cure this deficiency. *KR 415* only discloses organic silane compounds which are not hydrosilane compounds. See *KR 415 English translation*, pages 19-21 and Examples 1 and 2. Even though Chemical formula #2 of *KR 415* can be a hydrosilane (See *KR 415 English translation*, page 3), it still fails to teach or suggest that “only hydrosilane compounds” are hydrolyzed and condensed as recited in claim 1. Like *KR 415*, *KR 709* also fails to teach or suggest the features discussed above and cannot cure the deficiency of *Nishikawa*. Because the organic siloxane resin of *KR 709* should include Chemical Formula 2, which is not a hydrosilane compound. See *KR 709 English translation*, claim 1. In addition, dielectric constants disclosed in *KR 415* and *KR 709* are well outside the range as recited in claim 1, thus these references also fails to teach or suggest the element of “...dielectric constant in the range of 2.24 to 2.48 and a mechanical strength in the range of 6 to 8 GPa” as recited in claim 1. Accordingly, claim 1 is patentable over the combined teachings of *Nishikawa*, *KR 415* and *KR 709*. Likewise, claims 5-9 which variously depend from claim 1 are also patentable for at least the same reasons as discussed above. Applicants, therefore, respectfully request withdrawal of this rejection.

The Office Action rejects claims 1 and 4-9 under 35 U.S.C. §103(a) as being unpatentable over *KR 415* or *KR 709* respectively. Claim 4 is now canceled and thus, the rejection with respect to this claim is now moot. As to the remaining claims, Applicants respectfully traverse these rejections.

As discussed above, neither *KR 415* nor *KR 709*, singularly or in combination teach or suggest all the claimed elements. Therefore, the teachings of *KR 415* or *KR 709* cannot render claim 1 and dependent claims 4-9 obvious and Applicants respectfully request withdrawal of this rejection.

The Office Action rejects claims 1 and 4-9 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent Application Publication No. 2002/0106500 to Albano et al.

(hereinafter “*Albano*”). Claim 4 is now canceled and thus, the rejection with respect to this claim is now moot. As to the remaining claims, Applicants respectfully traverse this rejection.

Albano fails to teach or suggest at least the element of “only hydrosilane compounds...at least one hydrosilane compound has the following Chemical Formula 1.” The Office Action mistakenly alleges that the starting silane meets the limitations of formula 1. *Office Action*, page 6. Applicants respectfully disagree. According to *Albano*, the starting material has the formula, $\{R_3SiO_{1/2}\}_a\{R_2SiO_{2/2}\}_b\{RSiO_{3/2}\}_c\{SiO_{4/2}\}_d$. See *Albano*, ¶¶ [0024] and [0025]. Even though the above formula in *Albano* can be a hydrosilane when R is a hydrogen, the remaining oxygen does not meet the limitation of formula 1 as recited in claim 1. Accordingly, *Albano* does not teach or suggest each and every element of claim 1 and dependent claims 5-9, and thus cannot render these claims obvious. Applicants, therefore, respectfully request withdrawal of this rejection.

The application is in condition for allowance and early, favorable action is respectfully solicited. If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at (202) 496-7500 to discuss the steps necessary for placing the application in condition for allowance. All correspondence should continue to be sent to the below-listed address.

If these papers are not considered timely filed by the Patent and Trademark Office, then a petition is hereby made under 37 C.F.R. §1.136, and any additional fees required under 37 C.F.R. §1.136 for any necessary extension of time, or any other fees required to complete the filing of this response, may be charged to Deposit Account No. 50-0911. Please credit any overpayment to deposit Account No. 50-0911.

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